



Clarification: Flexible Hoses

1. Governing Documents

NASA-STD-8719.17 Revision A; Section 4.10.4

2. Question or Issue

Do all flexible hoses need to be certified, tagged, and have a regular maintenance interval? Can only RECERT test/inspect flexible hoses for extending the expiration date on tags?

3. Clarification

Not all flexible hoses (i.e. stainless steel braded/tygon tubing/etc.) require inspection/certification. Only flexible hoses whose rupture could cause an unacceptable hazard to personnel or mission are required to be tested. Non-hazardous flexible hoses do not require certification or testing. Non-hazardous is defined as less than or equal to 150 psig operating pressure, hose outer diameter less than or equal to ½" nominal, and inert fluids at ambient temperatures. Also, flexible hoses that are operating at pressures not greater than 20% of the maximum allowable working pressure (MAWP) with inert gases at ambient temperatures may also be considered exempt from certification requirements.

Flexible hoses that require certification shall be inspected and tested at a frequency no greater than a five (5) year interval. The exact interval will be determined by the Pressure Systems Manager. The Flexible hose should be tested in accordance with ASME B31.3 test pressure requirements for process piping. If the test is conducted at a pressure lower than the original manufacturers rating, then the MAWP of the Flexible Hose will be reduced to reflect the test pressure. Flexible hoses that operate under hazardous conditions, where hazardous is defined as not fulfilling the criteria above, must be maintained at an appropriate test interval. The owner is able to determine which components can be classified as hazardous, but ultimately the Pressures Systems Manager will have to approve the classification.

The owner is able to perform the testing/inspection required to extend the expiration date on certifiable components, however, the owner must submit relevant procedures to the Pressures Systems Manager for approval prior to performing the test. The owner may also choose to have a third party perform the tasks on the owner's behalf, as long as appropriate procedures have been reviewed by the Pressures Systems Manager for approval. All testing is to be conducted in accordance with the NASA standard 8719.17 and other National Consensus Standards.

It will be the responsibility of the owner to determine when a system/component needs testing based on the expiration date. RECERT will remind the owner as well based on the information recorded in the CM System. It will be the responsibility of the owner to notify RECERT when those actions have been successfully completed.



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4. Additional Requirements

The owner should develop a numbering/naming convention to track the non-certified inventory so as not to cross contaminate with certified inventory.

A RECERT issued exempt tag can be supplied for tagging all exempt from certification flexible hoses. The tag shall have the following information as a minimum, and is to be interpreted as not requiring an in-service inspection maintenance period provided the limitations of the tag are not exceeded. The provided tag shall be a Black colored tag.

Code Number Exempt
Test Date
Maximum Operating Pressure (MOP) in PSIG
MAWP in PSIG
Inert Only

Table 1: Exempt Tag Minimum Content

Code 540 Exempt
Test 09/06/2012
MOP - 600 PSIG
MAWP – 3000 PSIG
Inert Only

Figure 1: Example Exempt Tag